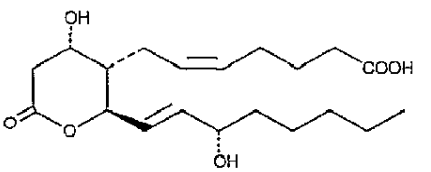
Product Information

11-dehydro Thromboxane B_2

Catalog No. 19500

CAS Registry No.: 67910-12-7
Synonym: 11-keto Thromboxane B_2
Formal Name: 9α,15S-dihydroxy-11-oxothromba-5Z,13E-dien-1-oic acid
MF: $C_{20}H_{32}O_6$
FW: 368.5
Purity: ≥ 98%
Stability: ≥ 1 year at -20°C
Supplied as: A solution in methyl acetate



Laboratory Procedures

For long term storage, we suggest that 11-dehydro Thromboxane B_2 (11-dehydro TXB_2) be stored as supplied at -20°C. It will be stable for at least one year.

11-dehydro TXB_2 is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of 11-dehydro TXB_2 in these solvents is at least 25 mg/ml. 11-dehydro TXB_2 is stable for at least six months in these solvents if stored at -20°C.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of 11-dehydro TXB_2 is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. Avoid adding 11-dehydro TXB_2 to basic solutions (pH>7.4), since base treatment will cause the hydrolysis of the lactone function of 11-dehydro TXB_2. The solubility of 11-dehydro TXB_2 in PBS (pH 7.2) is at least 100 µg/ml. We do not recommend storing the aqueous solution for more than one day.

TXB_2 is released in substantial quantities from aggregating platelets and metabolized during circulation to 11-dehydro TXB_2 and 2,3-dinor TXB_2.[1] 11-dehydro TXB_2 is one of the main plasma metabolites of TXB_2 and can be used as a marker for *in vivo* TXA_2 synthesis.[1-4] The mean plasma level of 11-dehydro TXB_2 in human males is 0.9-4.3 pg/ml and the half-life is 45-60 minutes.[2-4]

References

1. Ciabattoni, G., Pugliese, F., Davi, G., *et al.* Fractional conversion of thromboxane B_2 to urinary 11-dehydrothromboxane B_2 in man. *Biochim. Biophys. Acta* **992**, 66-70 (1989).
2. Fitzgerald, G.A., Lawson, J., Blair, I.A., *et al.* Analysis of urinary metabolites of thromboxane and prostacyclin by negative-ion chemical-ionization gas chromatography/mass spectrometry. *Adv. Prostaglandin Thromboxane Leukotriene Res.* **15**, 87-90 (1985).
3. Takasaki, W., Nakagawa, A., Tanaka, Y., *et al.* Enzyme immunoassay of human plasma 11-dehydrothromboxane B_2. *Thromb. Res.* **63**, 331-341 (1991).
4. Catella, F., Healy, D., Lawson, J.A., *et al.* 11-Dehydrothromboxane B_2: A quantitative index of thromboxane A_2 formation in the human circulation. *Proc. Natl. Acad. Sci. USA* **83**, 5861-5865 (1986).

Related Products

Thromboxane B_2 - Cat. No. 19030 • 2,3-dinor Thromboxane B_2 - Cat. No. 19050 • Thromboxane B_2-d_4 - Cat. No. 319030 • 11-dehydro Thromboxane B_2-d_4 - Cat. No. 319500

WARNING: THIS PRODUCT IS NOT INTENDED OR APPROVED FOR HUMAN OR VETERINARY USE. USE OF THIS PRODUCT FOR HUMAN OR ANIMAL TESTING IS EXTREMELY HAZARDOUS AND MAY RESULT IN DISEASE, SEVERE INJURY, OR DEATH.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSD supervisor at your institution.

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